



ILC Cavity Database Update

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On behalf of the ILC database team:

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And many thanks to the DESY ILC DB Support Group:

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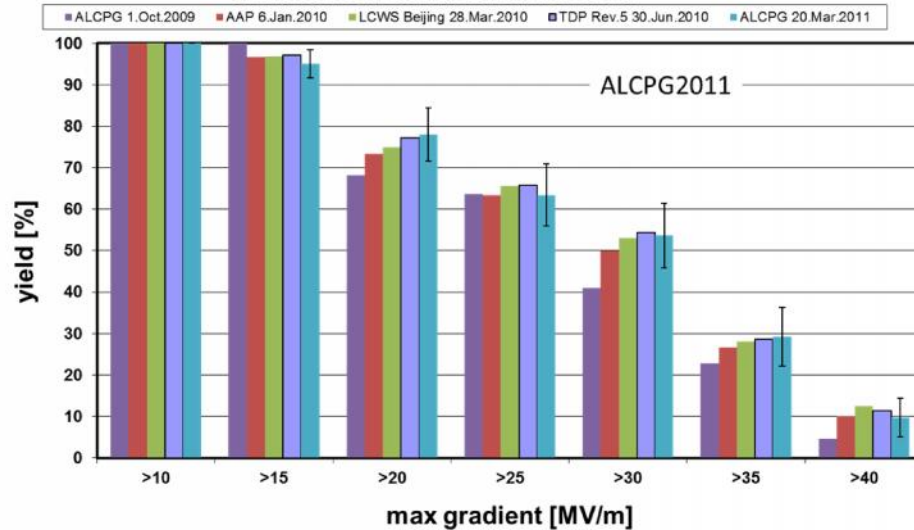


Updates

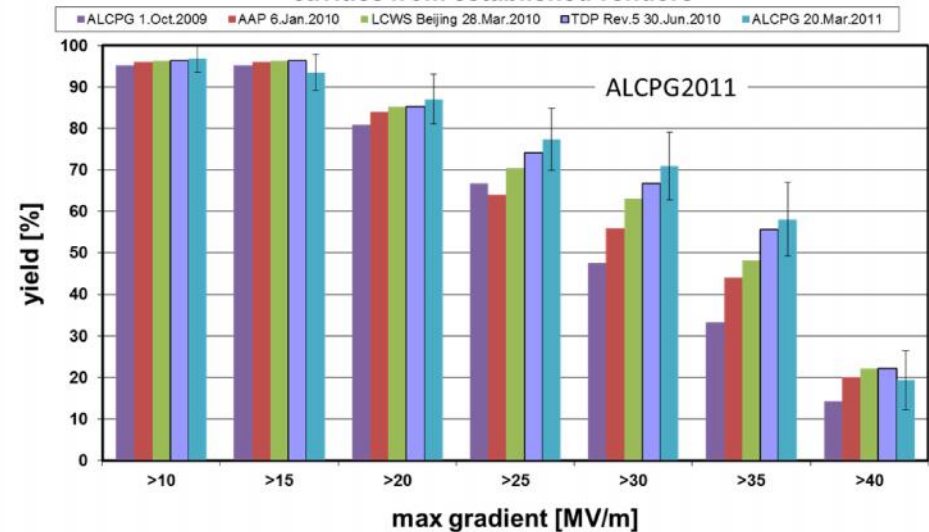
- ❑ Previous update was ALCPG11 (Eugene) March 2011
 - ❑ 41 cavities for 1st pass, 31 cavities for 2nd pass
- ❑ Additional plots made with ALCPG11 data at Akira's request
 - ❑ Yield time dependence by workshop and by year(s)
- ❑ Updates which affect standard yield plots
 - ❑ KEK (Kirk)
 - ❑ MHI016: test#1 $E_{acc}=20.8$ MV/m added
 - ❑ MHI017: test#1 $E_{acc}=38.4$ MV/m added
 - ❑ Note: MHI015 2nd VT after localized grinding, not (yet) accepted process, not included
 - ❑ JLab (Camille)
 - ❑ TB9RI028 2nd pass: test#1 22.0 MV/m -> test#2 $E_{acc}=38.8$ MV/m (mistake corrected)
 - ❑ DESY (Sebastian)
 - ❑ AC146: test#1 $E_{acc}=23.63$ -> 26.13 MV/m (mistake corrected)
 - ❑ AC146: test#2 $E_{acc}=40.2$ MV/m added
 - ❑ Z162: test#1 $E_{acc}=31.0$ MV/m added
- ❑ 44 cavities for 1st pass, 33 cavities for 2nd pass

Time Progression by Workshop

Electropolished 9-cell cavities
JLab/DESY/KEK (combined) first successful test of
cavities from established vendors

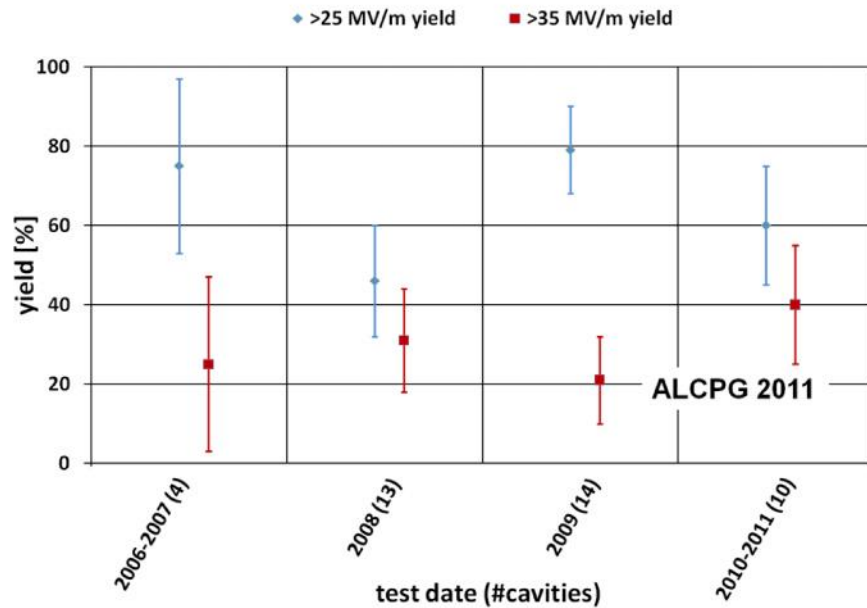


Electropolished 9-cell cavities
JLab/DESY/KEK (combined) up-to-second successful test of
cavities from established vendors

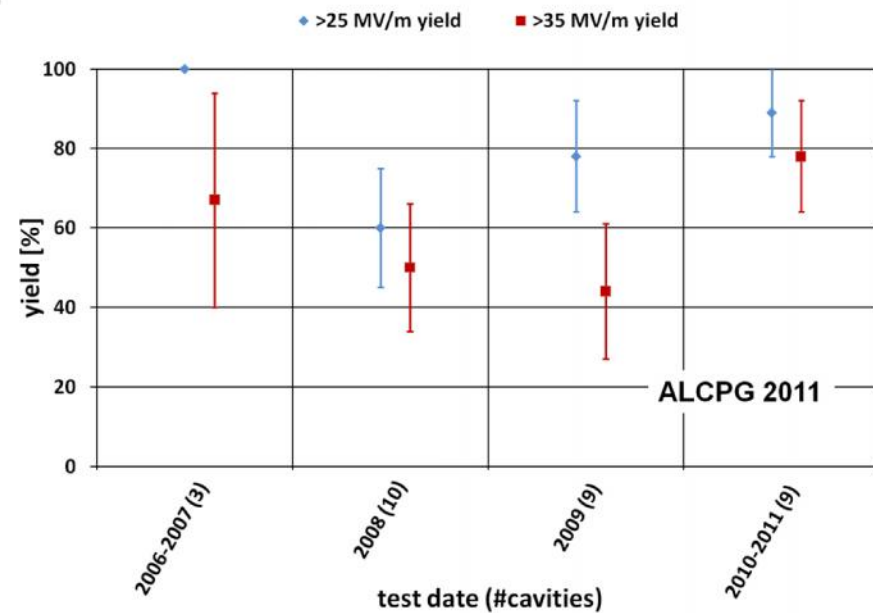


Time Progression by Year

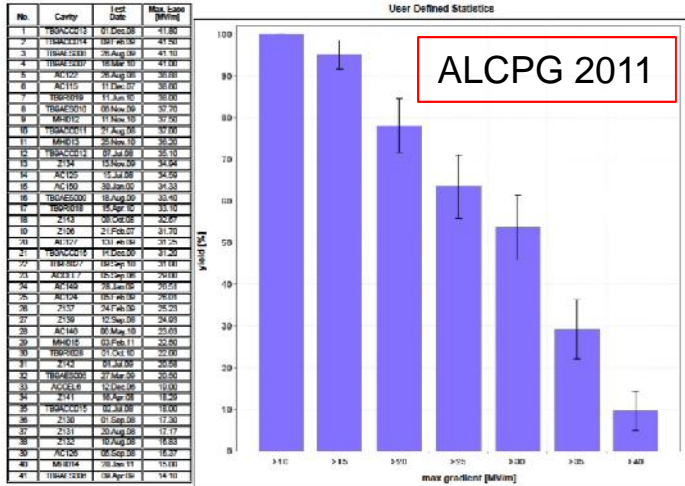
1st pass yield - established vendors, standard process



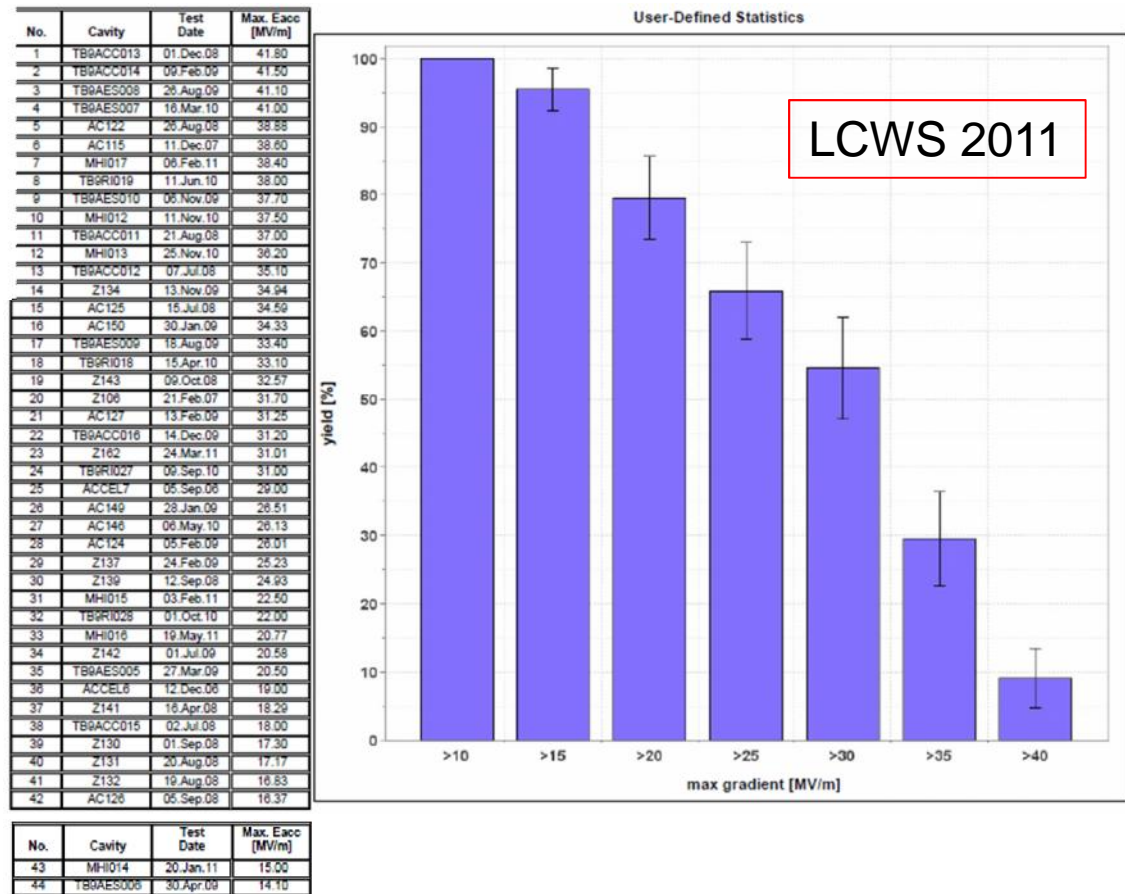
2nd pass yield - established vendors, standard process



Yield Plot Updates: 1st Pass detail



1st-pass cavity yield at >25 MV/m was (63 +- 8) %
 now **(66 +- 7) %**
 >35 MV/m was (29 +- 8) %
 now **(30 +- 7) %**



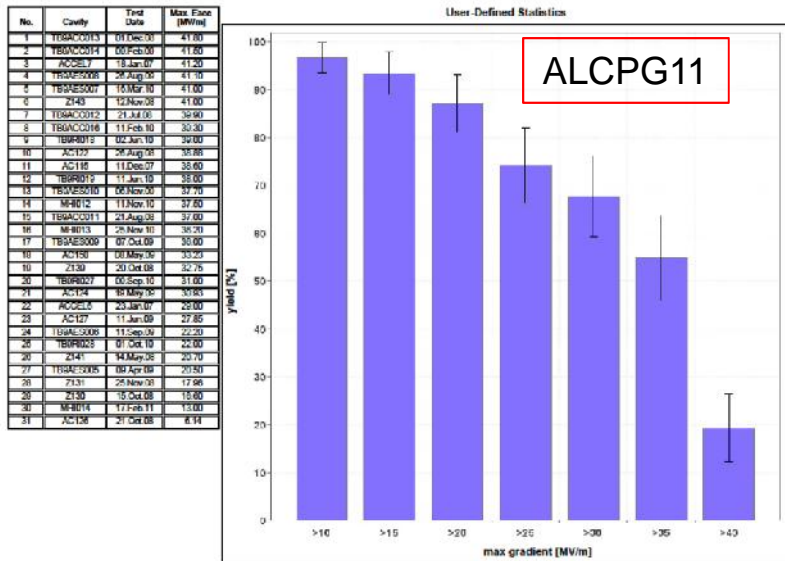
Yield Plot Updates: 2nd Pass Detail

2nd-pass cavity yield at >25 MV/m was (74 +- 8) %

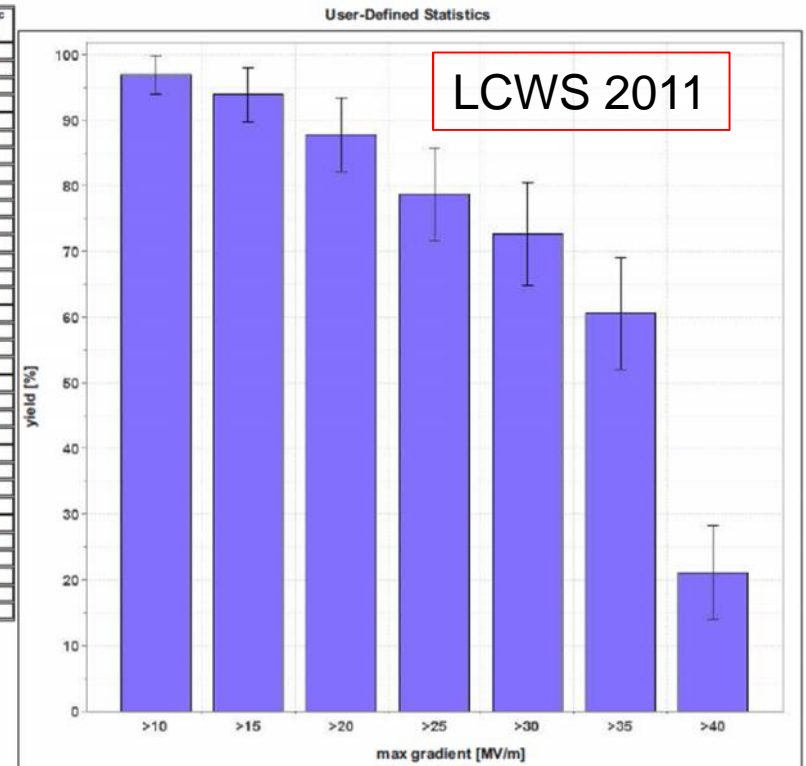
now (79 +- 7) %

>35 MV/m was (55 +- 10) %

now (61 +- 9) %

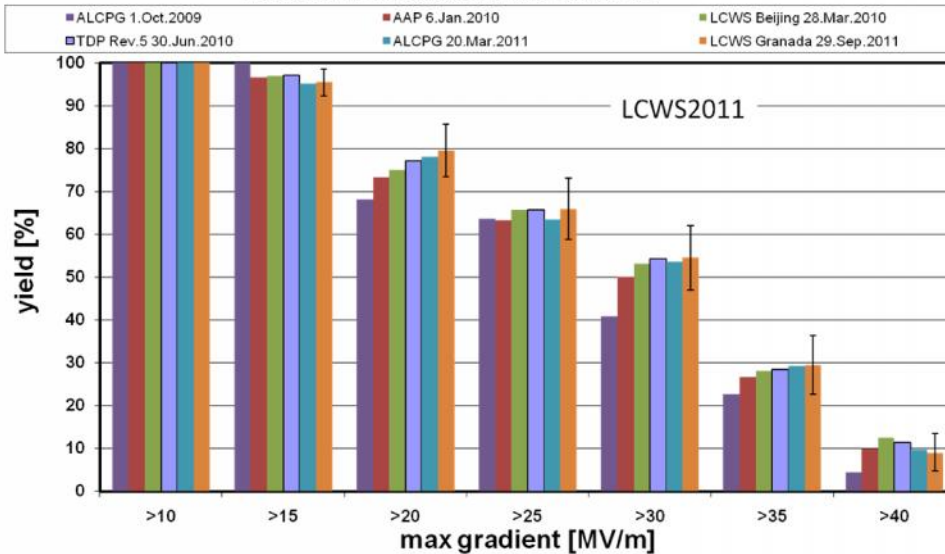


| No. | Cavity | Test Date | Max. Eacc [MV/m] |
|-----|-----------|-----------|------------------|
| 1 | TB9ACC013 | 01.Dec.08 | 41.80 |
| 2 | TB9ACC014 | 09.Feb.09 | 41.50 |
| 3 | ACCEL7 | 18.Jan.07 | 41.20 |
| 4 | TB9AES008 | 26.Aug.09 | 41.10 |
| 5 | TB9AES007 | 16.Mar.10 | 41.00 |
| 6 | Z143 | 12.Nov.08 | 41.00 |
| 7 | AC146 | 04.Aug.11 | 40.18 |
| 8 | TB9ACC016 | 11.Feb.10 | 39.30 |
| 9 | TB9RD18 | 02.Jun.10 | 39.00 |
| 10 | AC122 | 26.Aug.08 | 38.88 |
| 11 | TB9RD28 | 18.Oct.10 | 38.80 |
| 12 | AC115 | 11.Dec.07 | 38.60 |
| 13 | MH017 | 06.Feb.11 | 38.40 |
| 14 | TB9RD19 | 11.Jun.10 | 38.00 |
| 15 | TB9AES010 | 06.Nov.09 | 37.70 |
| 16 | MH012 | 11.Nov.10 | 37.50 |
| 17 | TB9ACC011 | 21.Aug.08 | 37.00 |
| 18 | MH013 | 25.Nov.10 | 36.20 |
| 19 | TB9AES009 | 07.Oct.09 | 36.00 |
| 20 | TB9ACC012 | 07.Jul.08 | 35.10 |
| 21 | TB9RD27 | 11.Oct.10 | 34.80 |
| 22 | AC150 | 08.May.09 | 33.23 |
| 23 | Z139 | 20.Oct.08 | 32.75 |
| 24 | AC124 | 19.May.09 | 30.93 |
| 25 | ACCEL6 | 23.Jan.07 | 29.00 |
| 26 | AC127 | 11.Jun.09 | 27.85 |
| 27 | TB9AES006 | 11.Sep.09 | 22.20 |
| 28 | Z141 | 14.May.08 | 20.70 |
| 29 | TB9AES005 | 09.Apr.09 | 20.50 |
| 30 | Z131 | 25.Nov.08 | 17.96 |
| 31 | Z130 | 15.Oct.08 | 16.60 |
| 32 | MH014 | 17.Feb.11 | 13.00 |
| 33 | AC126 | 21.Oct.08 | 6.14 |

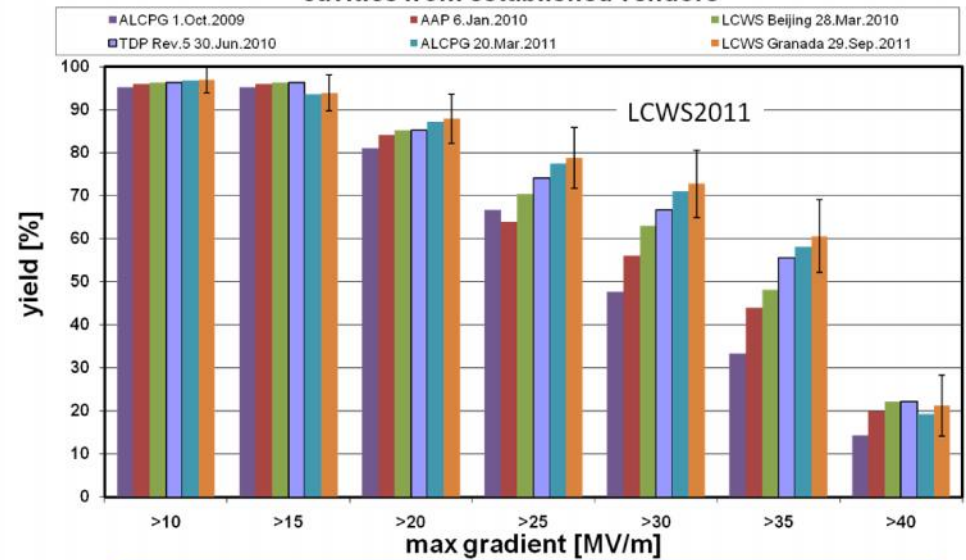


Time Progression by Workshop

Electropolished 9-cell cavities
JLab/DESY/KEK (combined) first successful test of
cavities from established vendors

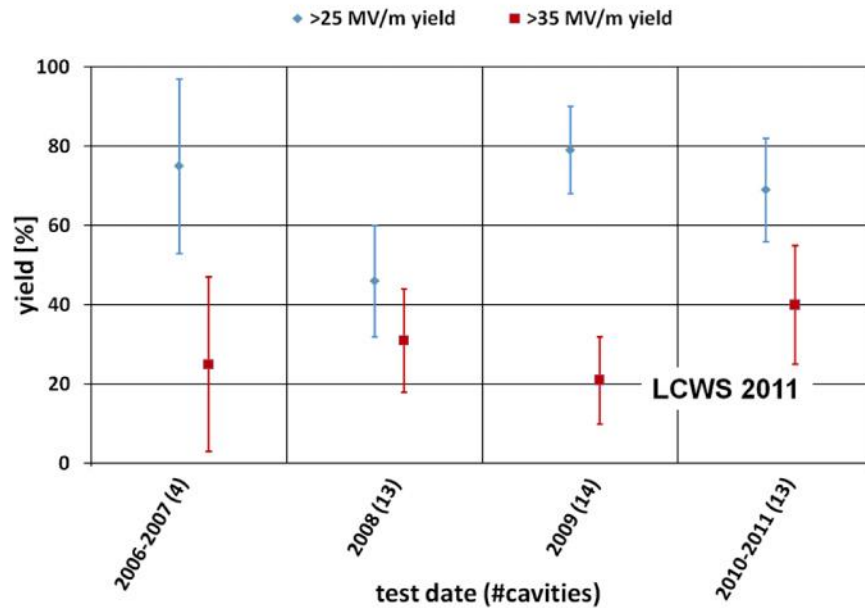


Electropolished 9-cell cavities
JLab/DESY/KEK (combined) up-to-second successful test of
cavities from established vendors



Time Progression by Year

1st pass yield - established vendors, standard process



2nd pass yield - established vendors, standard process

